

Appln. Serial No. 10/810,340
Amendment Dated December 16, 2005
Reply to Office Action Mailed October 17, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

- 1 1.- (Currently Amended) A measurement method for measuring a physical value,
2 comprising
3 during [[a]] one clock cycle: forming an input signal, a reference signal and an offset
4 signal, the input signal including a parasitic value and a useful measurement
5 value, the signals being respectively associated with an input element, a reference
6 element and a parasitic element, all these elements being coupled [[and]] in a
7 same current or voltage path, thus having a common driving signal of [[the]] a
8 same value, the parasitic value depending on the common driving signal, and
9 deriving a relationship between the input signal, from which the parasitic value has been
10 cancelled out, and the reference signal, and
11 from this relationship, determining a value relating to the physical value.
- 1 2.- (Original) A measurement method according to claim 1, wherein the input signal is a
2 first voltage.
- 1 3.- (Original) A measurement method according to claim 2, wherein the first voltage is
2 obtained from a direct voltage drop over the sensing element.
- 1 4.- (Original) A measurement method according to claim 1, wherein the reference signal is a
2 second voltage.
- 1 5.- (Original) A measurement method according to claim 2, wherein the reference signal is a
2 second voltage.
- 1 6.- (Original) A measurement method according to claim 4, wherein the second voltage is
2 obtained from a direct voltage drop over the reference element.

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- 1 7.- (Original) A measurement method according to claim 1, wherein the reference element is
2 a reference resistor.
- 1 8.- (Original) A measurement method according to claim 1, wherein the offset signal is a
2 third voltage.
- 1 9.- (Original) A measurement method according to claim 2, wherein the offset signal is a
2 third voltage.
- 1 10.- (Original) A measurement method according to claim 4, wherein the offset signal is a
2 third voltage.
- 1 11.- (Original) A measurement method according to claim 8, wherein the third voltage is
2 obtained from a direct voltage drop over the parasitic element.
- 1 12.- (Original) A measurement method according to claim 1, wherein the physical value
2 includes any of temperature, a pressure, a light intensity, a position.

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1 13.- (Currently Amended) A measurement system for indirect measurement of a physical
2 value, comprising
3 an analog-to-digital converter with at least a first, a second and a third port, each of the at
4 least three ports being suitable for receiving an input signal from an element, the
5 analog-to-digital converter being suitable for evaluating the physical value in one
6 measurement cycle,
7 a sensing element having a pre-defined characteristic parameter related to the physical
8 value to be measured, being coupled to the first port for applying an input signal
9 to said first port,
10 a reference element being coupled to the second port for applying a reference signal to
11 the second port,
12 an element corresponding to a parasitic value of the sensing element, being coupled to the
13 third port for applying a parasitic value of the sensing element to the third port,
14 the element, ~~being coupled with the sensing element and the reference element~~
15 [[and]] being coupled in a same current or voltage path, thus having a common
16 driving signal of ~~[[the]]~~ a same value,
17 means for deriving a relationship between the input signal, from which the parasitic value
18 of sensing element has been cancelled out, and the reference signal, and
19 means for deriving, from the relationship, a value relating to the physical value.

1 14.- (Original) A measurement system according to claim 13, wherein the reference element
2 is coupled in series with the sensing element.

1 15.- (Original) A measurement system according to claim 13, wherein the element
2 corresponding to a parasitic value of the sensing element is coupled in series with the
3 sensing element.

1 16.- (Original) A measurement system according to claim 14, wherein the element
2 corresponding to a parasitic value of the sensing element is coupled in series with the
3 sensing element.

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1 17.- (Original) A measurement system according to claim 13, wherein the reference element
2 comprises a reference resistor.

1 18.- (Original) A measurement system according to claim 13, wherein the physical value is
2 any of a temperature, a pressure, a light intensity, a position.

1 19.- (New) A measurement method according to claim 1, wherein the input signal, the
2 reference signal and the offset signal are fed to a digital-to-analog converter with at least
3 a first, a second and a third port.